

**SOCIETY MEETING OF APRIL 27, 1994****WHEN DESERT, CHAPARRAL AND FOREST COLLIDE:  
INSECT NATURAL HISTORY OF THE DEVILS RIVER OF TEXAS**

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The final meeting of The American Entomological Society's 1993-1994 schedule was one of the more exciting of recent years, featuring a joint gathering with the Entomological Society of Pennsylvania, presentation of the annual Calvert Award for the best local student project in entomology and a spectacularly illustrated and presented talk by Dr. C. Riley Nelson, of the University of Texas. Dr. Nelson, well known for his work on the systematics and ecology of two diverse insect groups, stoneflies (Plecoptera) and robber flies (Diptera: Asilidae), combined his wide knowledge of aquatic and terrestrial insects, other animals and plants, and geology in giving the Philadelphia audience an insight into a unique riparian system set in the aridlands of west Texas. At the same time, he clearly conveyed his great enthusiasm for this inventory work which he called a "systematist's dream."

The Devils River is an exceedingly interesting tributary of the Rio Grande river system in North America, lying close to the border of Mexico and flowing through the junction of ecotones of the Edward's Plateau woodland, South Texas Plains chaparral and the Chihuahuan Desert desertscrub. This intersecting of different biotypes explains much of the high diversity of both plants and animals, including many of the rarest plants in Texas. Unlike other systems, like the nearby Pecos River, which have been greatly affected by intensive farming and oil drilling, the low human population surrounding the Devils River and their historical reliance on low impact grazing has allowed this area to serve as a refuge for the native fauna of this part of Texas. To insure that this area remains unimpacted and its beauty unspoiled, the State of Texas and the Nature Conservancy have purchased 40,000 acres surrounding the Devils River. It is from funding by the Nature Conservancy and through cooperation by the State Parks agency that Dr. Nelson has been able to conduct an on-going study of the aquatic insects of the Devils River.

Working with specialists in various groups, Dr. Nelson has enumerated more than 200 species of aquatic insects, and this does not include the chironomids, which might be expected to make up a third of the fauna of any stream! The species of this river are dominated by caddisflies, and, because of the open nature of the riparian region, these are primarily grazers and filter-feeders (hydroptilids, hydropsychids and leptocerids), reaching densities of thousands per square foot. Other groups well represented in the flowing sections of the river include baetid mayflies, aquatic pyralid moths and dobsonflies. Deep pools, including an enormous one below a waterfall (Dolan Falls), are havens for more than 25 species of fish, including gar and the only U.S. species of cichlids and tetras. Interesting aquatic life is not restricted to the river itself, though. Other habitats with their own particular fauna include a short tributary of the river called Dolan's Creek, numerous springs flowing out along the base of high cliffs running along the creek and river, and ephemeral pools forming in the exposed limestone bedrock beside the creek. The springs are apparently where most of the species of crane flies occur, and these interesting sites also include cave dwelling organisms like isopods and amphipods. Ephemeral pools possess characteristic pupfish and fairy shrimp.